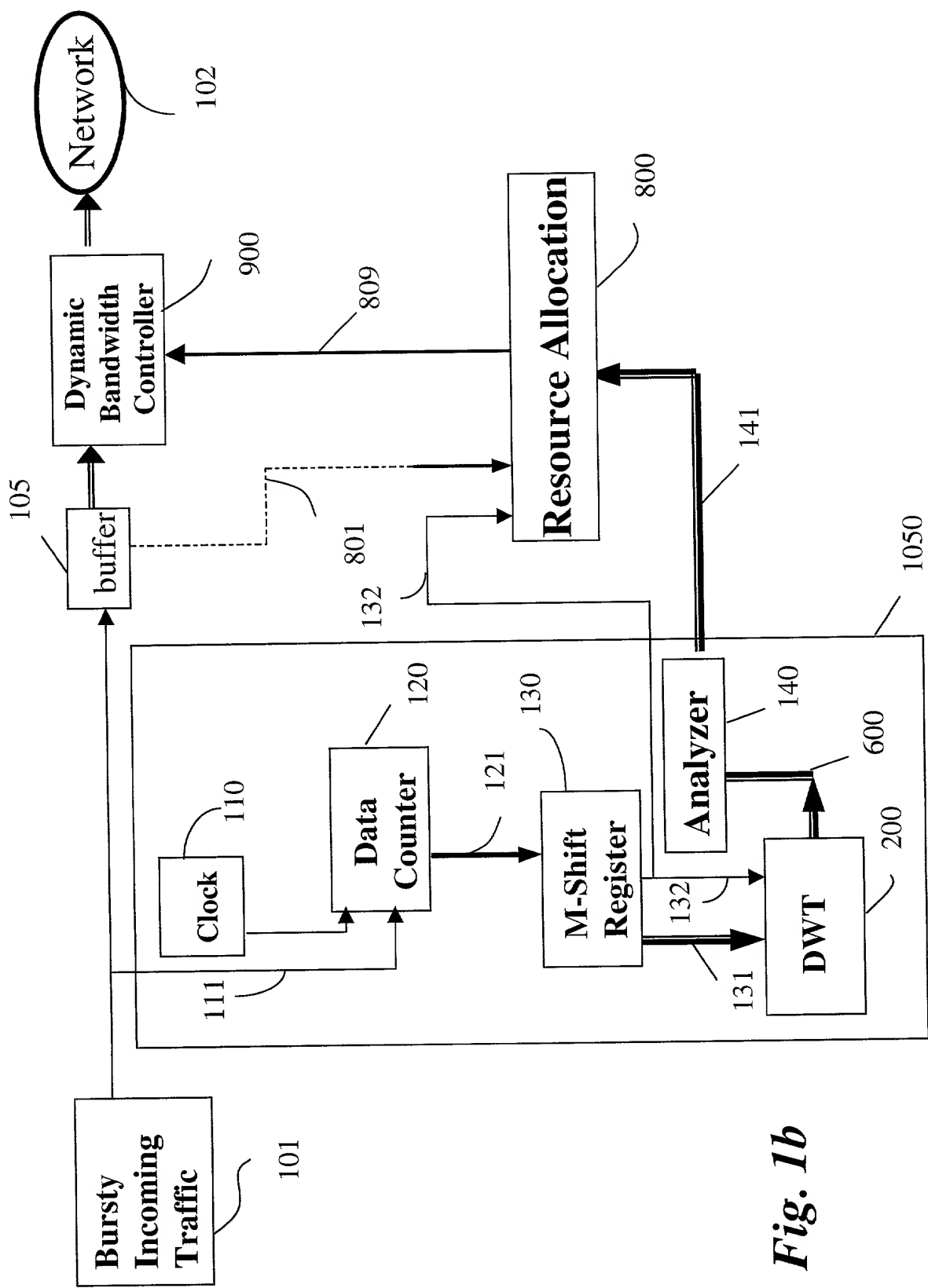


Fig. 1a



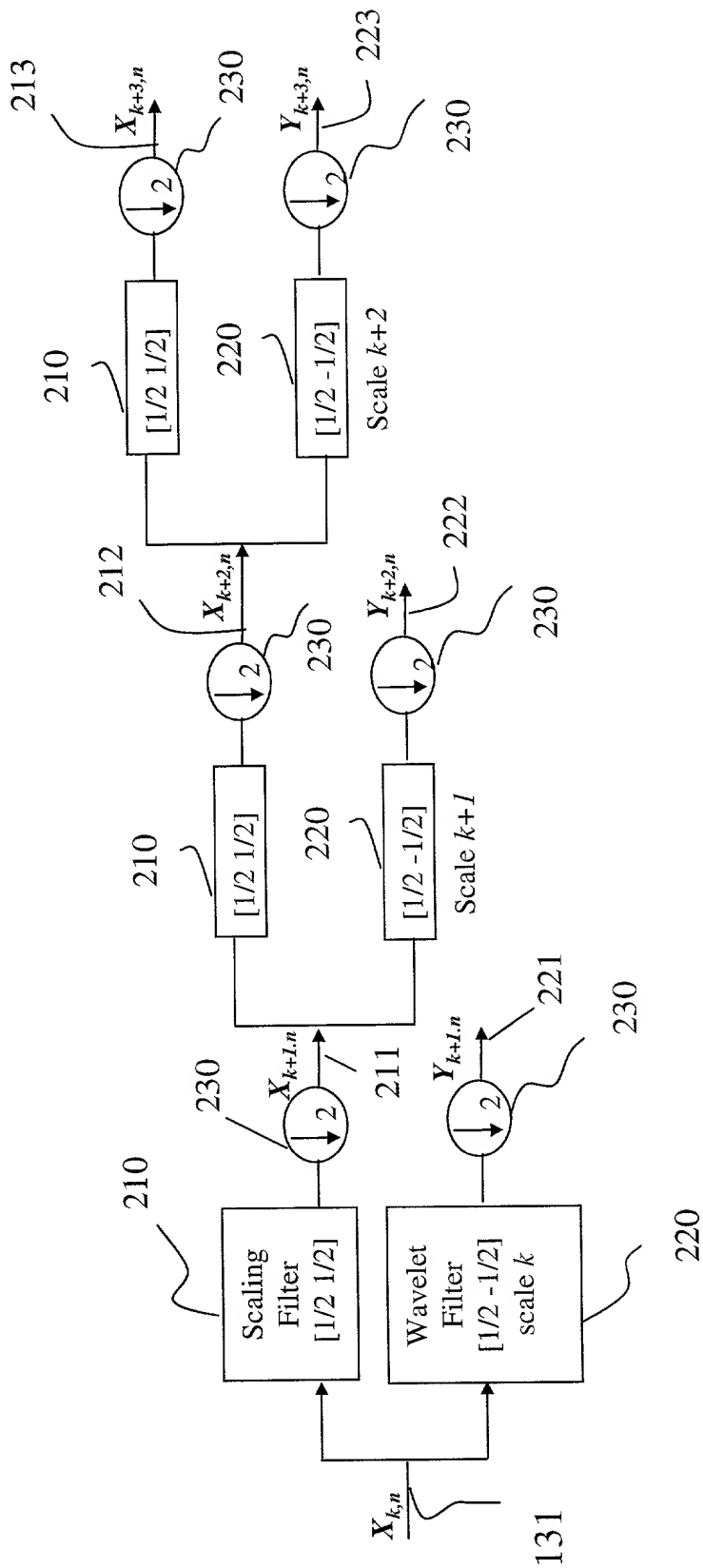


Fig. 2

and the other end of the line is connected to the ground. The other end of the line is connected to the ground. The other end of the line is connected to the ground.

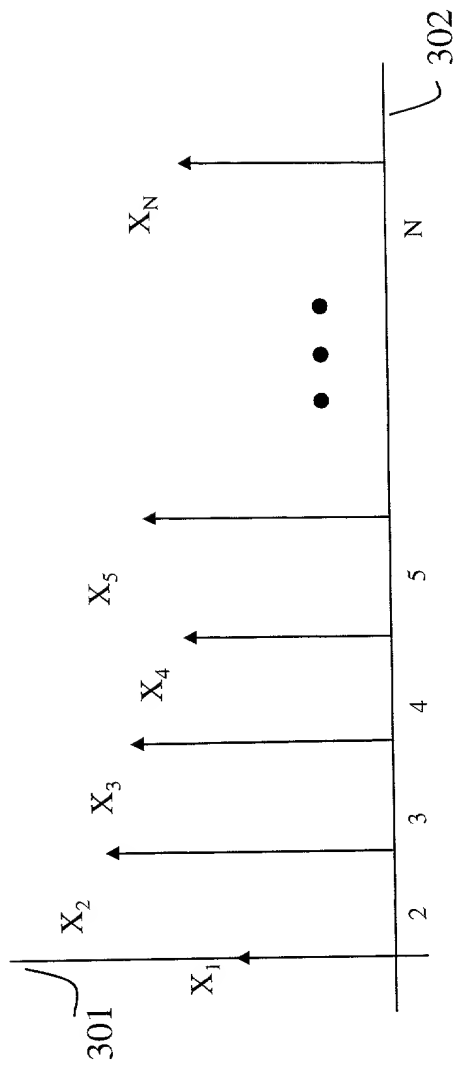


Fig. 3

FIG. 4 is a graph showing the variation of the output signal of the system 100 as a function of the input signal of the system 100. The graph shows a series of peaks and valleys, indicating a non-linear relationship between the input and output signals.

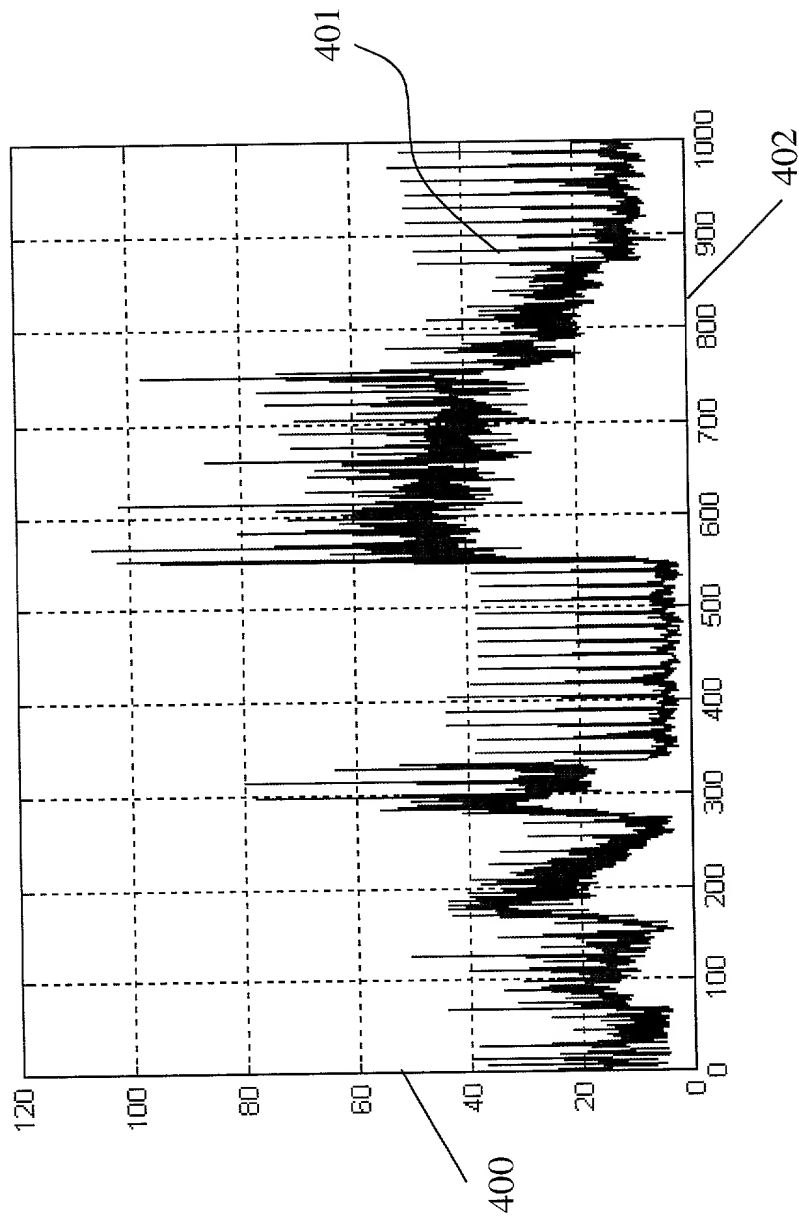


Fig.4

FIG. 5 is a graph of the magnitude of the transfer function $|H(f)|$ versus frequency f for the system of FIG. 1. The graph shows a series of peaks and valleys, with the peaks occurring at frequencies $f = 0, \pi/4, \pi/2, 3\pi/4, \pi$. The magnitude of the transfer function is plotted on a logarithmic scale, ranging from 10^4 to 10^8 .

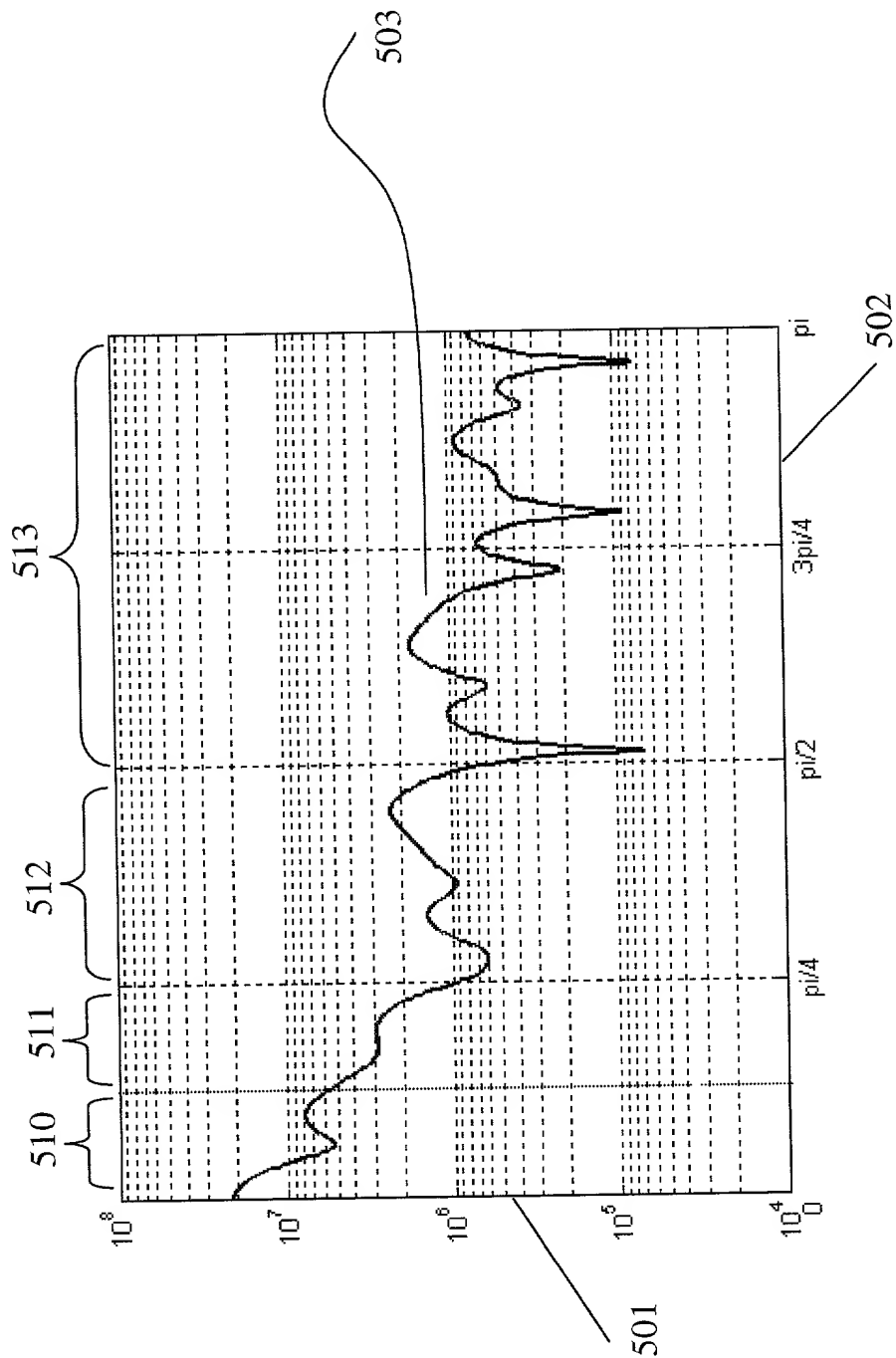


Fig.5

FIG. 6a is a block diagram of a multi-scale processing system 600. The system 600 includes a coarsest scale 213 and three fine scales 221, 222, and 223. The coarsest scale 213 is connected to the fine scales 221, 222, and 223. The fine scales 221, 222, and 223 are connected to a set of weights W₁ through W₈.

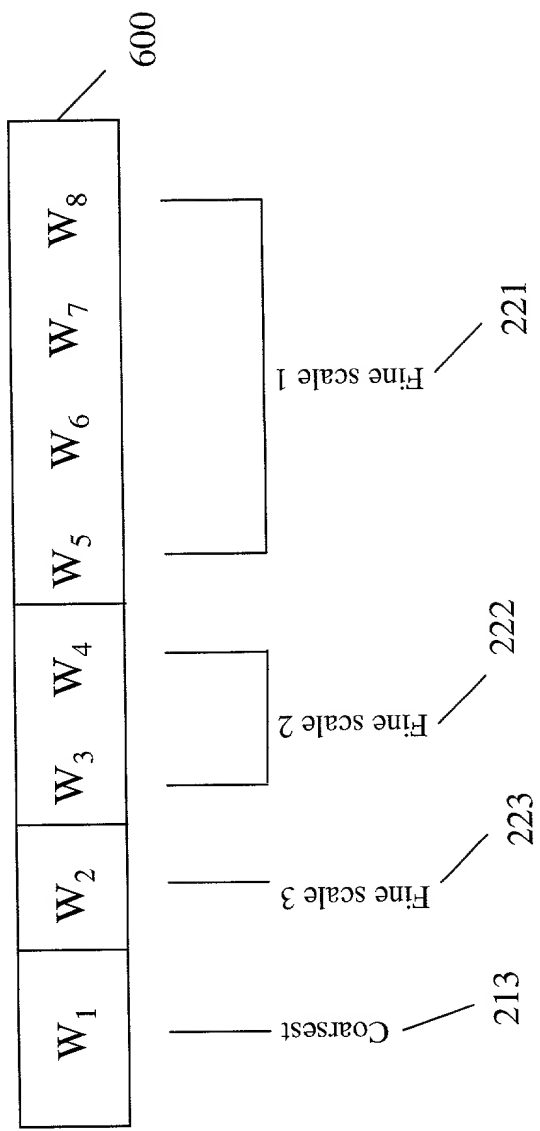


Fig. 6a

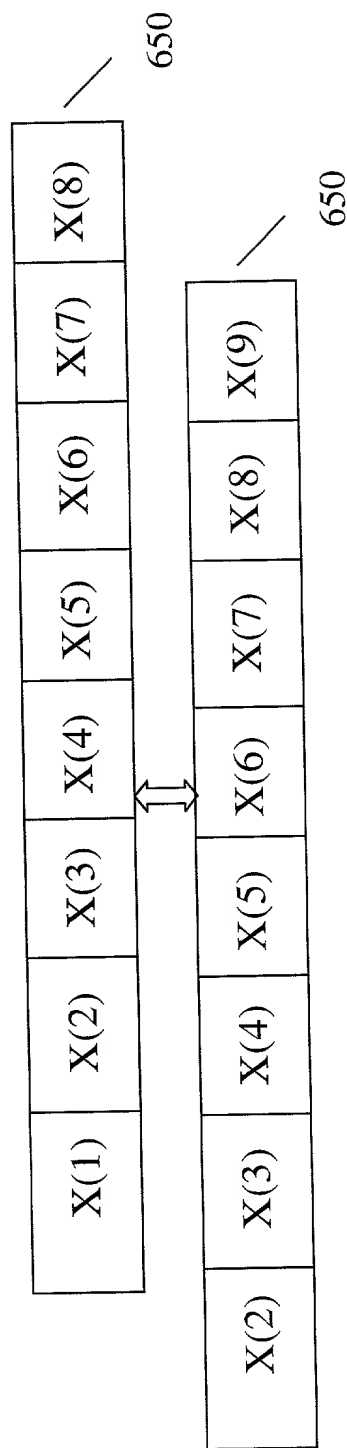


Fig. 6b

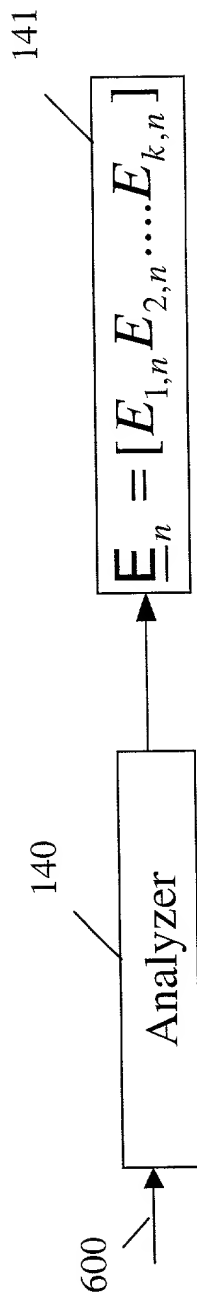


Fig. 7

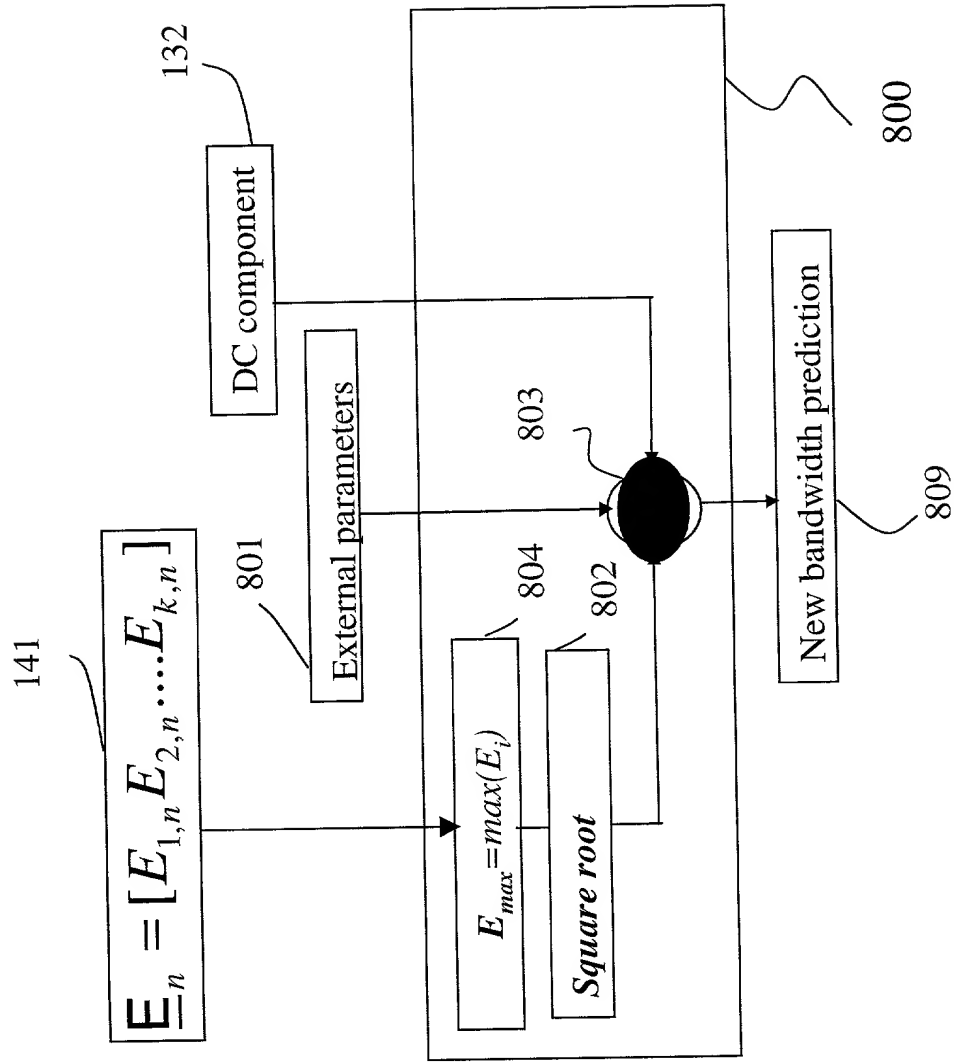


Fig. 8

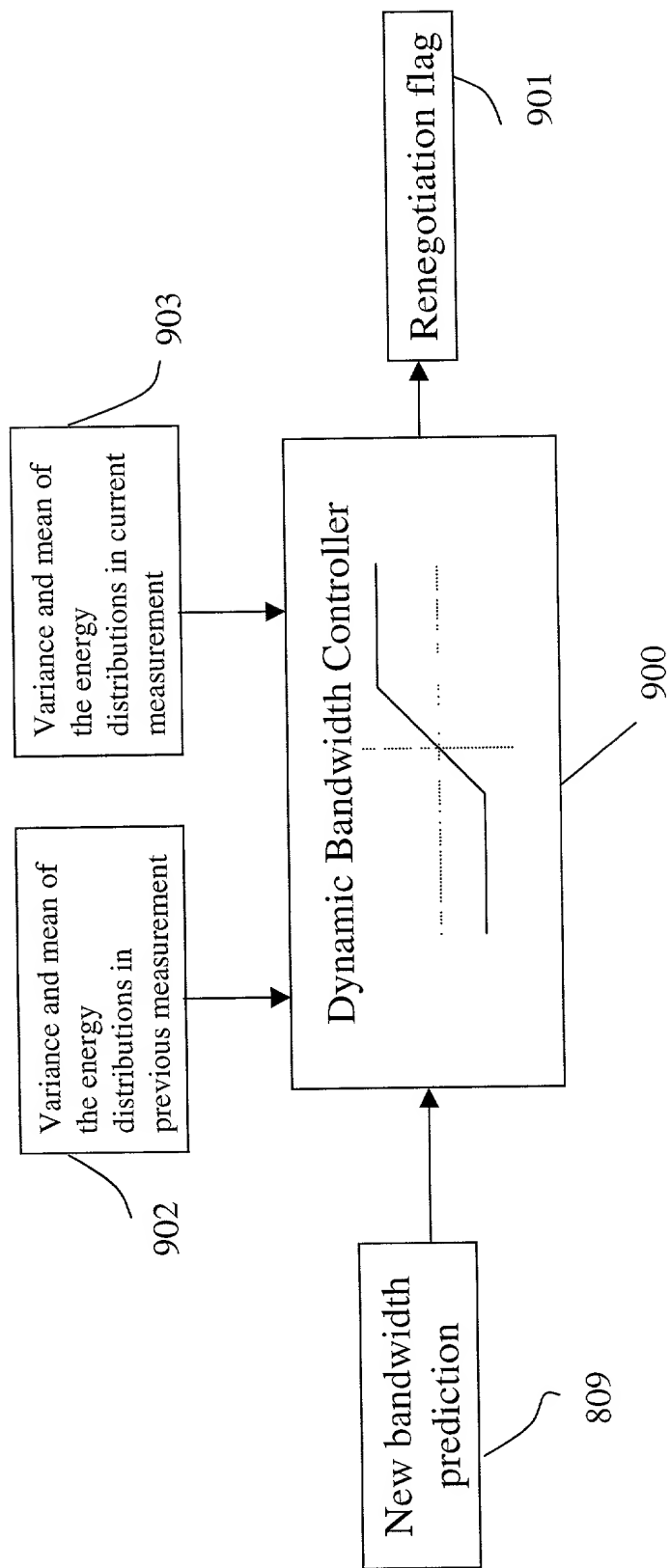


Fig.9

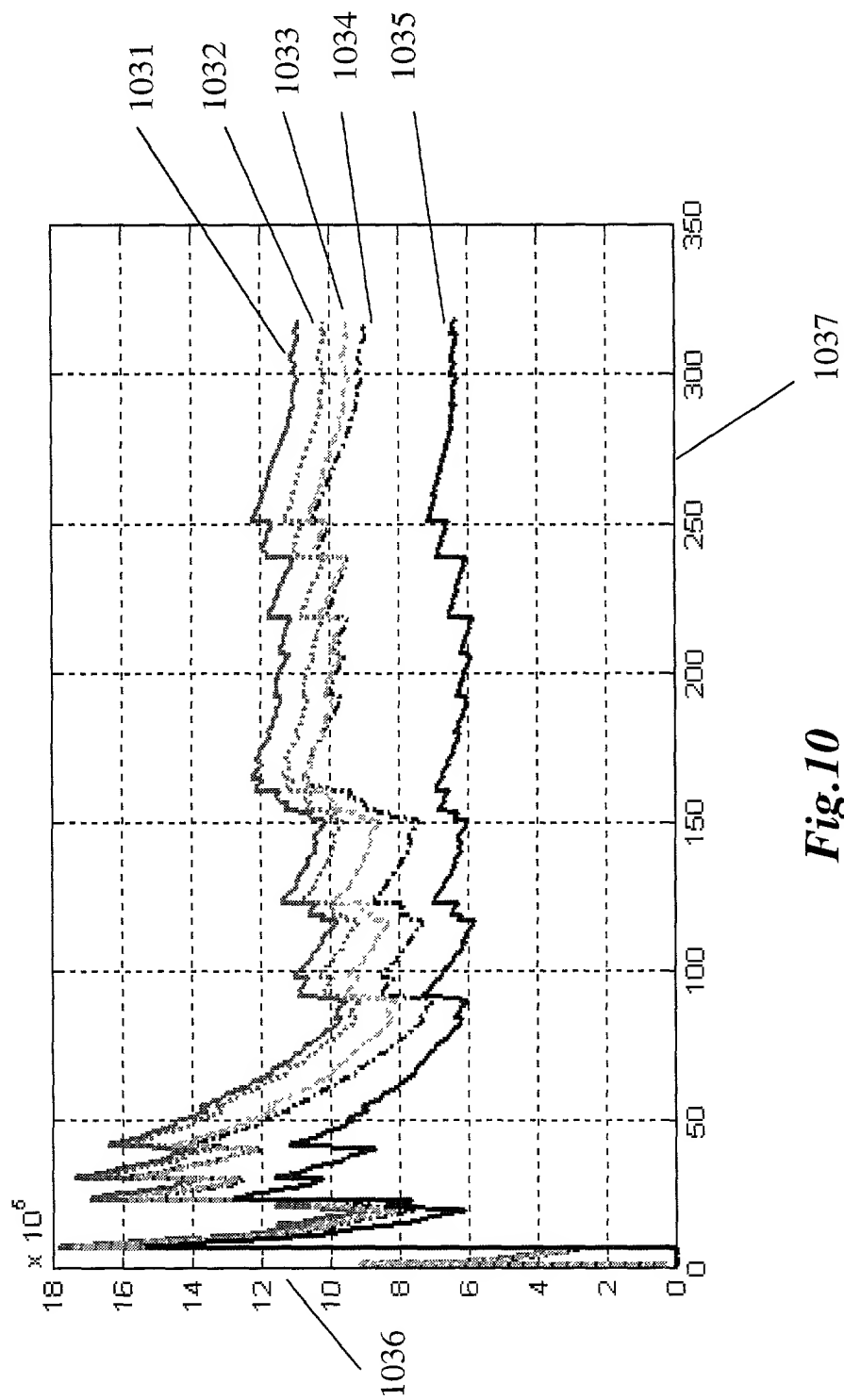


Fig. 10

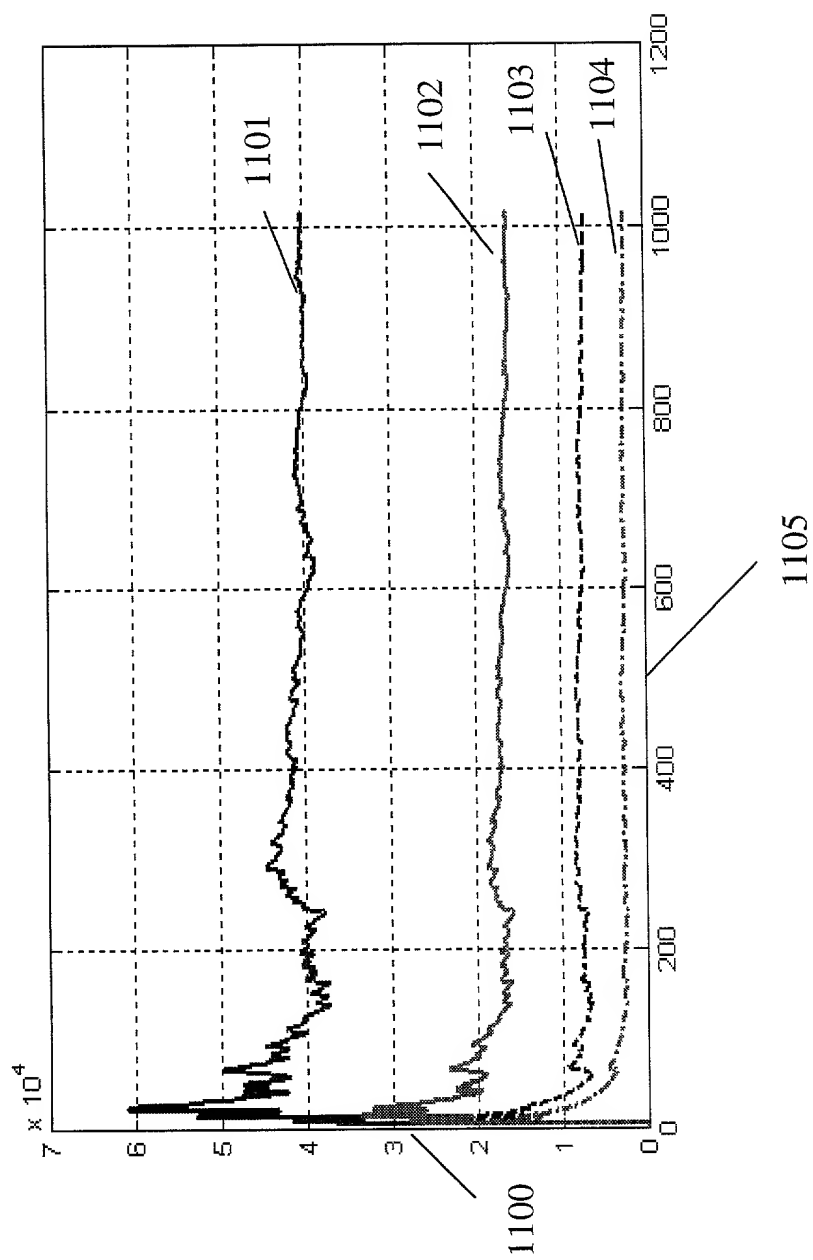


Fig.11

1200 1201 1202 1203
 0.8 0.7 0.6 0.5
 1 2 3 4
 0.2 0.1 0

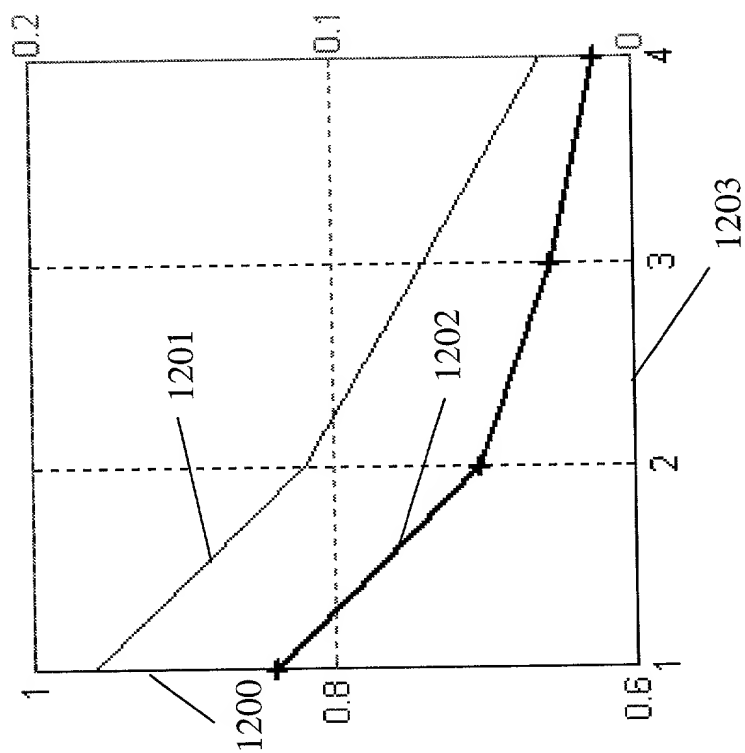


Fig. 12